

AMENDMENTS TO THE CLAIMS

1-14. (Cancelled).

15. (Currently Amended) A method of manufacturing a high-frequency assembly having including a plurality of components, at least one of which is frequency-specific, using an automatic assembly apparatus, the method comprising:

placing a plurality of components on a high-frequency assembly using a placing apparatus of an automatic assembly apparatus;

identifying a frequency-encoding feature on a frequency-specific component prior to gripping the frequency-specific component with the placing apparatus;

accepting the frequency-specific component for connection to the high-frequency assembly if the frequency-encoding feature indicates that the frequency-specific component is a correct component for the assembly; and

rejecting the frequency-specific component for connection to the high-frequency assembly if the frequency-encoding feature indicates that the frequency-specific component is not the correct component for the assembly.

16. (Previously Presented) The method of claim 15 wherein the frequency-specific component is taken from a stock that comprises a plurality of frequency-specific components, the method further comprising:

rejecting the entire stock of frequency-specific components if a predetermined number of frequency-specific components in the stock are successively rejected for connection.

17. (Previously Presented) The method of claim 15 further comprising:

searching for the frequency-encoding feature at a plurality of locations on the frequency-specific component; and
determining an orientation of the frequency-specific component based on a location at which the frequency-encoding feature is found.

18. (Previously Presented) The method of claim 17 further comprising:

identifying a reference point and a reference direction on the frequency-specific component;
forming a number of vectors beginning at the reference point, the vectors being of substantially equivalent length and forming pre-defined angles with respect to the reference direction; and
searching for the frequency-encoding feature at the ends of the vectors.

19. (Previously Presented) The method of claim 18 wherein each vector includes an end that terminates at a corner of a square.

20. (Currently Amended) The method of claim 18 further comprising:

determining a rotational position of the frequency-encoding feature; and
distinguishing which of a plurality of features is indicated by the frequency-encoding feature based on the ~~orientation~~ rotational position of the frequency-specific component.

21. (Previously Presented) The method of claim 15 further comprising:

- detecting an outline of the frequency-specific component;
- locating the frequency-encoded feature based on the detected outline of the frequency-specific component; and
- determining an orientation of the frequency-specific component based on the located frequency-encoded feature.

22. (Previously Presented) The method of claim 15 wherein the frequency-specific component comprises a circuit board.

23. (Previously Presented) The method of claim 22 wherein the frequency-encoded feature comprises a conductive material.

24. (Previously Presented) The method of claim 15 wherein the frequency-specific component comprises a mechanical component.

25. (Previously Presented) The method of claim 24 wherein the mechanical component comprises a cover that covers a mounted component.

26. (Previously Presented) The method of claim 15 wherein the frequency-encoded feature comprises a bore.

27. (Previously Presented) The method of claim 15 wherein the frequency-encoded feature comprises an indication printed on the frequency-specific component.

28. (Previously Presented) A frequency-specific component for a high-frequency assembly comprising:

a machine-detectable feature on the frequency-specific component; and
the machine-detectable feature being disposed on the frequency-specific component to indicate a specific operating frequency of the component.

29. (Currently Amended) A manufacturing apparatus for the automatic manufacture of a high-frequency assembly comprising:

a placing apparatus to place one or more components on a high-frequency assembly,
wherein at least one of the components comprises a frequency-specific component;
a sensor to detect a frequency-encoded feature associated with the frequency-specific component that indicates an operating frequency of the frequency-specific component;
a controller operatively connected to the sensor and configured to:
receive a signal from the sensor responsive to the detection of the frequency-encoded feature; and
control the placing apparatus to place the frequency-specific component on the assembly, or to reject the frequency-specific component based on the received signal prior to the component being taken up by the placing apparatus.

30. (New) The component of claim 28, wherein the component is provided with said machine-detectable frequency-encoding feature at one of a plurality of locations on a surface of the component, wherein the orientation of the component can be determined from at which one of the locations the feature is found in relation to a reference edge of the component.

31. (New) The component of claim 28, wherein the orientation of the component can be determined from the location at which the machine-detectable frequency-encoding feature is found with respect to the outline of the component.
32. (New) The component of claim 28, wherein the machine-detectable frequency-encoding feature is an optically detectable feature.
33. (New) The method of claim 15, wherein the step of identifying the frequency-encoding feature comprises optically identifying said frequency-encoding feature.
34. (New) The apparatus of claim 29, wherein the sensor is a camera.